

EDUCATION & HONORS

Indiana University - Luddy School of Informatics, Computing, and Engineering – Bloomington, IN

Bachelor of Science in Computer Science

May 2025

GPA: 3.73/4.0 - Cumulative, 4.0/4.0 - Math

Major: Computer Science, AI/ML Concentration | Minor: Mathematics

Activities and Awards:

- SpartaHack 8 Hackathon:** Achieved top 10 out of 70 teams for collaborating to craft [KnowledgeMap](#), a web app to visualize related keywords graphically with interactive nodes, built with Flask & JS, hosted on a personal server
  - 3+1 MSIS and KPMG Case Competition:** Secured 4<sup>th</sup> place out of 26 teams, earning a \$1,500 scholarship; [slide deck](#)
  - Luddy Direct Admit Scholarship:** Awarded a \$4,000 grant for strong academics and guiding young health enthusiasts
- Object Oriented Design Tutor – Bloomington, IN
- April 2023 - Present
- Stimulated interactive whiteboarding sessions to help lowerclassmen achieve academic success in object-oriented design
  - Recruited and handpicked by faculty out of 250+ students to instruct first-years in object-oriented design patterns
- Food Education at IU (Indiana University) – Bloomington, IN
- August 2021 - Present
- Facilitated cooking workshops with local chefs to educate community on balanced nutrition and multi-cultural cuisine

WORK EXPERIENCE

Louisiana State University - Center for Computation & Technology – Baton Rouge, LA

Research Intern

May 2023 – August 2023

- Investigated volatility of crypto coin exchange markets utilizing multi dimension fractal analysis. Paired fractality with long short-term models’ learning algorithm to increase learnability of high kurtosis data sets to reproduce anomalies
- Iteratively engineered generative models in TensorFlow, Keras & Docker; documented to ensure reproducible results
- Orchestrated weekly stand-up for principal investigators, addressing crisis catching applications of research and progress

Amplo Financial – Indianapolis, IN

Web and Marketing Intern

October 2020 – February 2021

- Researched WordPress, Shopify, and Meta Ads, to empower and inform clients about available digital marketing tech
- Utilized the Adobe suite to create custom logos, YouTube thumbnails, and Instagram templates, increasing conversions
- Sourced real estate buyers and enhanced home liquidation rates by investigating historical State Lands data for clients

DEVELOPMENT EXPERIENCE & LEADERSHIP

Luddy Undergraduate Research – Bloomington, IN

Researcher

August 2021 – May 2023

- Overhauled data collection of API documentation screenshots across multiple services, reducing run time by 200% by using asynchronous capture scripts with Playwright in tandem with a third-party OCR model; acknowledged in paper
- Predicted first base line notes from melodies by converting MIDI files into vectors for CNN, achieving 90% accuracy

Emerging Technologies Committee of Luddy – Bloomington, IN

Founder

May 2022 – August 2022

- Fostered a research and tech culture on campus by securing funding of \$8000 dollars per speaking event and utilizing the perspectives of researchers, start-ups, and industry leaders to give insight into modern and innovative tech-related fields

CashMap - Location Based Expense Tracker – Bloomington, IN

Developer

- Built intuitive IOS application with Swift to track expenses geographically, improving user budget awareness and control
- Created Widget for at-a-glance analytics about user spending with WidgetKit and CoreData, boosting app engagement

Spotify Artists Musical Feature Niche Analysis – Bloomington, IN

Developer

- Extracted song features using Spotify's API, Spotipy library; Employed a multi-linear regression model in R to quantify the impact of different song attributes on an artist's music, discovering musical niches and their defining characteristics

Neural Network from Scratch – Bloomington, IN

Developer

- Developed a multi-layer perceptron from scratch with only NumPy and achieved 96% accuracy on the UCI wine dataset

TECHNICAL SKILLS

Languages	Libraries	Tools
Python, Swift, Java, R, HTML, CSS	TensorFlow, NumPy, Scikit-learn, Pandas, Matplotlib, Swift UI, Pytorch, Flask, Playwright, Keras, JUnit, Tailwind CSS	Git, GitHub, Unix Based Systems, Xcode, VS Code, IntelliJ, Docker